

## **Claims**

What is claimed is:

1. A system for authenticating information communicated over a network,  
comprising:

an originating device, said originating device comprising:

means for generating data representative of data received by  
said originating device;

means for computing a checksum of said input data;

means for encrypting said computed checksum, thereby  
generating an encrypted checksum data;

means for convolving said representative data and said  
encrypted checksum data thereby producing a convolved data;

means for communicating said convolved data to a destination  
device;

said destination device comprising:

means for computing checksum of data received at said  
destination device;

means for decrypting said encrypted checksum data from said  
convolved data;

means for comparing said decrypted checksum data with checksum computed by said destination device in order to verify the authenticity of information received by said destination device; and

means for alerting a recipient at said destination device in the event of a mismatch between said decrypted checksum data and the checksum computed by the destination device.

2. The system of claim 1, wherein said originating device comprises means for rasterizing input documents.
3. The system of claim 1, wherein said originating device is a digital facsimile apparatus.
4. The system of claim 1, wherein said originating device is a computer system capable of converting a digital document to a facsimile compatible format .
5. The system of claim 4, wherein said computer system comprises communication means with communication software installed in said computer system.

6. The system of claim 1, wherein said destination device comprises a computer system comprising communication means with communication software installed in said computer system.
7. The system of claim 1, wherein information from said originating device to said destination device is communicated over a public switched telephone network.
8. The system of claim 1, further comprises means for converting said convolved data into a format compatible for e-mail transmission.
9. The system of claim 1, wherein information from said originating device to said destination device is communicated via wireless network.
10. The system of claim 1, wherein information from said originating device to said destination device is communicated via internet.

11.A system for authenticating information transmitted via a communications network, comprising:

a transmitting apparatus for converting an original input data into a first format, said transmitting apparatus further comprising means for computing an encrypted checksum representing said input data;

a receiving apparatus for receiving data in said first format from said transmitting apparatus, said receiving apparatus further comprising:

means for computing checksum of said received data;

a decrypting means for decrypting said encrypted checksum; and

means for comparing said decrypted checksum with checksum of said received data, and alerting a recipient at said receiving apparatus in the event of a mismatch.

12. The system of claim 11, wherein said transmitting apparatus is a digital facsimile system.

13. The system of claim 11, wherein said receiving apparatus is a digital facsimile system.

14. The system of claim 11, wherein said transmitting apparatus comprises a computer system comprising a communication means with communication software installed in said computer system.
15. The system of claim 14, further comprises a server system in communication with said computer system.
16. The system of claim 11, wherein said receiving apparatus comprises a computer system comprising a communication means with communication software installed in said computer system.
17. The system of claim 16, wherein said server system is in communication with said computer system, said server system configured to receive and store said decrypted checksum along with said received data in said first format.
18. The system of claim 17, further comprises an e-mail system configured to access said server system, said e-mail system being operable to receive and display said decrypted checksum along with said received data in said first format, said received data being viewed using a software capable of displaying said received data.